

CLAIMS

What is claimed is:

- 5 1. An absorption spectroscopy method comprising the steps of:
 providing a sample in a container;
 rotating the container;
 while rotating the container, directing a beam of electromagnetic radiation
 through the container, the beam comprising one or more wavelengths selected from the group
10 consisting of visible wavelengths, infrared wavelengths, and ultraviolet wavelengths; and
 measuring characteristics of the beam after it passes through the container.
2. The method of claim 1 wherein the providing step comprises providing a sample in a
bottle.
- 15 3. The method of claim 1 wherein a reduction is accomplished in one or both of
wavelength dependence of interference and amplitude variation of interference.
4. The method of claim 1 wherein absorbance sensitivity is increased.
- 20 5. The method of claim 1 wherein rotating comprises rotating in a single direction.
6. The method of claim 1 wherein rotating comprises rotating in a plurality of directions.
- 25 7. The method of claim 6 wherein rotating comprises rotating in a primary and a
reverse direction.
8. The method of claim 7 wherein rotating comprises periodically reversing direction.

9. The method of claim 1 additionally comprising the step of determining a region of the container through which desired beam characteristics are optimized.

10. The method of claim 9 additionally comprising the step of stopping rotating of the container so that the beam passes through the determined region.

11. The method of claim 10 wherein the stopping step comprises stopping all rotation of the container.

12. The method of claim 10 wherein the stopping step comprises rotating the container such that the beam always passes through the determined region.

13. The method of claim 1 wherein the rotating step comprises rotating through a plurality of revolutions.

14. The method of claim 1 wherein the directing step comprises directing a beam comprising one or more wavelengths.

15. The method of claim 1 additionally comprising the step of averaging a plurality of spectra collected in the measuring step.

16. An absorption spectroscopy apparatus comprising:
a container holder;
a drive rotating said container holder;
means for, while rotating said container, directing a beam of electromagnetic radiation through said container, said beam comprising one or more wavelengths selected from the group consisting of visible wavelengths, infrared wavelengths, and ultraviolet wavelengths; and
means for receiving said beam upon passage through said container.

17. The apparatus of claim 16 wherein said container holder comprises a bottle holder.

18. The apparatus of claim 16 additionally comprising means for subsequently stopping said drive so that said beam passes through a particular region of said container.
- 5 19. The apparatus of claim 16 wherein said directing means comprises a laser.
20. The apparatus of claim 19 wherein said directing means comprises a diode laser.